



A Review of Effectiveness of Management Schemes for European Marine Sites – Final Report

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Defra Contract Manager: Carole Kelly, Marine Biodiversity R&D Programme Manager
Marine Science and Evidence Unit.

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Department for Environment Food and Rural Affairs (Defra)
Nobel House
17 Smith Square
London SW1P 3JR

Authors:

Roger K.A. Morris, Teresa Bennett, Rob Blyth-Skyrme, Peter J. Barham & Andrena Ball

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Executive Summary

1. This report presents the findings of an investigation into the management of activities that occur within English European Marine Sites (Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)). It is based on information gathered on a non-attributable basis from a wide range of statutory and non-statutory stakeholders.
2. The investigation identified strengths and weaknesses within the management scheme approach. There is no absolute reason for continuing to use the current approach, but there can be no certainty that an alternative would be any more effective. However, it is clear that some mechanism for coordinating the management of European Marine Sites (EMS) is essential if the needs of the EU Directives are to be met.
3. This report therefore focuses on those aspects of the Regulation 36 (Habitats & Species Regulations, 2010) 'management scheme' approach that provide useful pointers to possible future action. The review had three main objectives, which were to determine if current management schemes in England:
 - i. are effective;
 - ii. deliver the conservation objectives for the site; and
 - iii. represent value for money.
4. Sub-objectives were also established for the review, which were:
 - i. to assess whether the management schemes are delivering their objectives or whether they need to be improved and how;
 - ii. to analyse and report on the management schemes, evaluating successful and less successful practice and the implications of this;
 - iii. to outline current funding and governance arrangements for existing management schemes and identify whether these are fit for purpose and whether improvements can be made; and
 - iv. to indicate applicability of findings to other Marine Protected Areas such as Marine Conservation Zones.
5. The study comprised a combination of web-based investigations and direct contact with stakeholders. No stakeholder group was sufficiently large to undertake statistical analyses of views and experience. Four separate groups of stakeholders (54 respondents) were asked for input: Natural England, other Relevant Authorities, Project Officers, and members of Advisory Groups (primarily Non-Governmental Organisations (NGOs)).

Models and composition

6. Five models for managing European Marine Sites were identified:
 - i. No management scheme.

- ii. No management scheme but existing estuary/coastal partnership is regarded as the management mechanism.
 - iii. Management scheme exists as a document and the secretariat (if there is one) is provided by one of the Relevant Authorities.
 - iv. Secretariat provided by a coastal/estuary partnership, sometimes primarily focussed on European marine site issues.
 - v. Management scheme employs a Project Officer.
7. Management schemes mainly exist on sites where risks of deleterious activities highlighted by Natural England are most prevalent. However, the mechanisms used to effect management vary, as above.
 8. For the last and most specialised option, the estimated total cost of establishing a management scheme and employing a Project Officer to run the scheme from 1997 to 2011 is calculated to be £715,000.
 9. Not all Relevant Authorities have demonstrated the same levels of commitment to European Marine Site management, but no particular pattern emerges.
 10. Most land-based Relevant Authorities have very limited technical competency to work in the marine environment. A Project Officer working on behalf of all Relevant Authorities concerned can therefore provide a cost-effective source of information, co-ordination and specialist marine and coastal skills.

Effectiveness

11. Current arrangements for managing European Marine Sites were found to have varying degrees of effectiveness. Several examples of good practice emerged, most notably on The Wash and North Norfolk Coast, and in the Tamar Estuaries Consultative Forum. For example, in the case of The Wash, direct results can be attributed to the actions of the management scheme through their Project Officer (e.g. action to stop disturbance by low-flying aircraft).
12. Relevant Authority Groups provide an unquantifiable but valuable forum for information exchange and relationship management. Simply knowing who operates where, how they work and what their priorities are can mean much more efficient delivery of responsibilities within individual Authorities. It is important that this knowledge base is used as the starting point for action.
13. Weaknesses were detected in several places and NGO concerns about management scheme effectiveness were recognised. Several factors may be responsible, including personality clashes, reporting approaches and (lack of or mistaken) prioritisation within one or more of the Relevant Authorities.
14. A simple cost-benefit and strengths, weaknesses, opportunities and threats (SWOT) analysis suggests that there can be good grounds for employing a Project Officer whose role is primarily to co-ordinate the statutory responsibilities of the Relevant Authorities. Alternative models do bring benefits, and in sites where there are few pressures a Project Officer may not be needed.
15. Two models for cost-effectiveness are offered. One considers the numbers of staff that might have to be employed by Relevant Authorities to deliver their statutory

responsibilities without a Project Officer and management scheme. An alternative model in which external consultants are used to provide expert advice is also considered. Both models demonstrate that the Project Officer approach is the most cost-effective option, with cost benefit ratios ranging from 1:2 to 1:5.

Leadership and future prospects

16. The Habitats Regulations do not identify a lead amongst the Relevant Authorities. This is arguably the most significant weakness in the management scheme approach. Leaders need to be identified and given responsibility to ensure that management schemes deliver their objectives.
17. Uncertainty about funding by several key bodies was recognised as a potential risk to the long-term maintenance of existing management schemes. In several cases, this uncertainty appears likely to lead to the scheme's demise with clear consequences that would need to be managed in the event to ensure that regulatory duties of Relevant Authorities are maintained.

Conservation Objectives

18. Lack of access to consistent and detailed monitoring data meant that it was not possible within the timeframe of this project to determine whether the Conservation Objectives for the European Marine Sites were being delivered.
19. Furthermore, it emerged that some stakeholders may have been confusing broader management objectives with those that strictly pertain to managing the European Marine Sites.

Recommendations

20. The issues raised by this study lead to a number of recommendations. These include:
 - i. There is a need to revisit definitions of management schemes and to develop guidance on what they are for and how they might be expected to function.
 - ii. A clear leadership structure needs to be established. It might be helped by establishing a national co-ordinator to provide oversight and direction.
 - iii. Additional guidance is required to make sure that all Relevant Authorities understand what is expected of them, including the provision of information to support the management process.
 - iv. If it is concluded that the management scheme model is preferred, a central fund should be established to help to underpin management schemes that are judged to require a Project Officer.
 - v. The relationship between the marine and adjacent terrestrial elements of coastal Natura 2000¹ needs to be more closely linked so that management strategies are aligned and integrated.
 - vi. Development of an induction pack that provides relevant information for all stakeholders. This should explain the role of conservation objectives, condition monitoring, responsibilities of stakeholders, and the objectives of the work.

¹ Natura 2000 is the combined network of sites designated as Special Areas of Conservation (SAC) and Special Protection Areas (SPA) under the EC Habitats Directive (1992) and Birds Directive (1979).

- vii. Develop a programme to share experience between management schemes and also to disseminate that experience to other Member States.

Possible application to wider marine management

21. There is limited scope for directly translating existing arrangements into the wider marine environment although they may be helpful in developing stakeholder engagement. This is especially true where sites lie beyond 6 nm where jurisdiction is complex but involves a small number of bodies including Defra, the MMO and the Royal Navy. However, in the near-shore environment (within 6 nm) a variation of the management scheme approach might be employed for discrete sections of coastlines and groups of MCZs.
22. MCZ projects should develop a series of local nodes where it is possible to engage with non-statutory stakeholders (in line with the approach developed for The Wash and North Norfolk Coast management scheme Advisory Groups). This approach requires further thought once the suite of proposed MCZs is finalised.
23. The management scheme model appears to be poorly suited to the Marine Protected Area (MPA) process offshore. Instead, Regional Advisory Councils (RACs) offer a viable model for engaging stakeholders and obtaining advice for the development of MPA networks. The RACs should therefore continue to be engaged and supported by UK agencies. Relationship management methods developed within management schemes may, though, be helpful to generate stakeholder commitment.

Table of Contents

Executive Summary	ii-v
1. Introduction	3
Overview	3
The management scheme concept	4
A broader context	6
Objectives of the study	7
Choice of study sites and consultees	7
2. Results and Analysis	9
Governance	9
Objective-setting and delivery	10
Effectiveness of existing arrangements	11
The benefits and drawbacks of employing a Project Officer	14
Wider considerations	14
Funding	15
Access to information	16
3. Findings and Interpretation	17
Estimated costs of developing and running management scheme	17
Possible models for cost-benefits for supporting a Project Officer	18
Transferring good practice to new sites	20
4. Conclusions and considerations	22
Should schemes have a Project Officer?	22
Roles and responsibilities	22
Funding	23
Improving integration between terrestrial and marine conservation objectives	24
Efficiency gains from managing a suite of marine sites	25
Improving reporting	25
Induction pack	26
Sharing experience in Europe	26
Transferring experience to MCZs	27
Disseminating information	27
5. References & Bibliography	29
6. Glossary	30

1. Introduction

Overview

- 1.1 This report was commissioned by Defra to help it develop policy and delivery for conservation of the marine environment. It presents the picture that emerged as a consequence of dialogue with a wide range of stakeholders. This means that the judgements made by the authors are not binding on Defra.
- 1.2 When the Habitats Directive (1992) was transposed into UK law through the 'Habitats & Species Regulations'², it was recognised that there were differences between the ways in which terrestrial and marine sites might be managed. On land, nature conservation sites are 'owned' and the Wildlife and Countryside Act (as amended) provides a mechanism for regulating activities that might be harmful to wildlife assets. This is achieved through designation of discrete areas as Sites of Special Scientific Interest (SSSI) and establishment of the need to seek 'consent' for certain activities from the relevant nature conservation agency.
- 1.3 The SSSI mechanism can also be applied to some activities down to mean low water, although usage of inter-tidal and sub-tidal environments has traditionally been far less regulated and many activities enjoy rights of access that would not be possible on land.
- 1.4 It must also be recognised that concepts of management differ. In terrestrial environments biological outcomes are achieved by adjusting pressures to secure a particular stage in succession. For example, grazing or mowing may arrest scrub and woodland development, or it may control sward height or tussockyness. In the marine environment the main conservation objective lies in maintaining biological communities that are characteristic of the forcing conditions of wave and tidal energy, currents and sediment distribution. Consequently, the concept of management focuses much more on the reduction of anthropogenic pressures in order to establish environments that function as close to 'natural' as possible.
- 1.5 A separate mechanism for managing marine wildlife assets was therefore established. It was composed of two separate provisions:
 - Regulation 35 of the Habitats & Species Regulations, 2010 (formerly Regulation 33 of the Habitats Regulations, 1994), in which it became the responsibility of the wildlife agencies for England, Scotland, Wales and Northern Ireland to provide conservation objectives for the sites (below mean high water and out to the UK 12 nm territorial limit). (This is Regulation 18 in the Offshore Marine Regulations, 2007 which requires JNCC to provide this advice in UK waters beyond the UK 12 nm territorial limit).³
 - Regulation 36 of the Habitats & Species Regulations, 2010 (formerly 34 of the Habitats Regulations, 1994), and Regulation 19 in the Offshore Marine

² Habitats Regulations (1994), Habitats & Species Regulations (2010) – see references.

³ Note, separate Regulations have been issued for Scotland and Northern Ireland since the original 1994 Regulations.

Regulations, 2007, which provided a mechanism for establishing a management scheme for sites that contained wildlife features below mean high water. The concept of the management scheme was not defined in detail, but it was made clear that there could only be one management scheme for a particular site. This had the effect of requiring management schemes to embrace overlapping sites such as those designated separately under the Habitats Directive (1992) and the Birds Directive (1979).

The management scheme concept

1.6 Regulation 36 of the Habitats & Species Regulations 2010 states:

- (1) *The Relevant Authorities, or any of them, may establish for a European Marine Site a management scheme under which their functions (including any power to make byelaws) are to be exercised so as to secure in relation to that site compliance with the requirements of the Habitats Directive.*
- (2) *Only one management scheme may be made for each European Marine Site.*
- (3) *A management scheme may be amended from time to time.*
- (4) *As soon as a management scheme has been established, or is amended, a copy of it must be sent by the relevant authority or authorities concerned to the appropriate nature conservation body.*

1.7 Management schemes are not obligatory. Regulation 36 of the Habitats & Species Regulations (2010) clearly states that Relevant Authorities **may** establish a management scheme. Direction can be given by the Secretary of State for the establishment of a management scheme, but this provision has not been used to date in England.

1.8 This legal framework means that there is no single body that is responsible for establishing a scheme, unless directed by the Secretary of State. Management schemes are designed to make use of the statutory powers of those authorities with competency for decision-making in, and management of, the marine environment.

1.9 Relevant Authorities form the 'Management Group' for a European Marine Site. They include: Natural England (NE), the Environment Agency (EA), Local Authorities (LAs), Inshore Fishery & Conservation Authorities (IFCAs – formerly Sea Fishery Committees), Internal Drainage Boards (IDBs), water companies and Navigation Authorities⁴.

1.10 It is important to note that whilst a mechanism for establishing management schemes is provided through Regulation 36, there appears to be no mechanism for making sure that Relevant Authorities actually engage with the scheme (although Defra direction is possible through Regulation 37).

1.11 Regardless of the adoption (or otherwise) of a management scheme, Competent Authorities (bodies empowered to grant consent for certain activities) are required by the Habitats & Species Regulations (2010) to exercise their functions under the

⁴ see <http://www.legislation.gov.uk/uksi/2010/490/regulation/6/made> for a complete list.

enactments relating to nature conservation so as to secure compliance with the requirements of the Habitats Directive (Regulation 9[1]).

- 1.12 In addition to the Relevant Authorities, it was recognised that there was a much wider group of stakeholders whose views and opinions needed to be taken into account when managing European Marine Sites. Consequently Advisory Groups were also conceived, to allow other stakeholders to contribute to the process.
- 1.13 Development of the concept of conservation objectives and management schemes was initiated by a joint project between all of the UK conservation agencies under the European Union LIFE Nature funding: the UK Marine SACs LIFE Project⁵ which ran between 1996 and 2001. It also benefitted from guidance from the then Department for Transport, Environment & the Regions (DETR, 1998). In England, funding for projects was mainly pump-primed by English Nature (the predecessor to Natural England). Relatively few management schemes have been established subsequently, although there are several examples such as those for the Humber Estuary, Stour and Orwell Estuary and Teesmouth and Cleveland Coast.
- 1.14 The UK Marine SACs LIFE project led to the establishment of 12 demonstration sites, six of which were wholly or partially in England:
 - Solway Firth
 - Berwickshire and North Northumberland Coast
 - Morecambe Bay
 - The Wash & North Norfolk
 - Chesil & the Fleet
 - Tamar Estuaries complex
- 1.15 Much of the initial effort went into establishing the Relevant Authorities Groups, developing processes and documentation. To this day, there are two critical components of the documentation: firstly, advice provided by the Statutory Conservation Agency under Regulation 35 of the Habitats & Species Regulations (2010) – Regulation 35 advice; and, secondly, a management scheme document.
- 1.16 Since the establishment of management schemes, there has been minimal focus on evaluating their effectiveness. This is not wholly unsurprising, as to the best of the authors' knowledge no effort has been made to undertake a review of the effectiveness of other EU LIFE initiatives so long after they were completed and reported. This study is therefore potentially the first of its kind.

A broader context

- 1.17 The Marine and Coastal Access Act (2009) and accompanying requirements to establish Marine Conservation Zones (MCZs) has raised the profile of marine nature conservation. This legislation complements existing requirements for designation of Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) under the EC Birds Directive (1979)⁶ and Habitats Directive (1992)⁷

⁵ <http://www.ukmarinesac.org.uk/project-background.htm>

⁶ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31979L0409:en:HTML>

⁷ http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

transposed into UK law through the Conservation (Natural Habitats, &c.) Regulations (1994), The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007, The Conservation of Habitats and Species Regulations 2010 and The Offshore Marine Conservation (Natural Habitats, &c.) (Amendment) Regulations 2010.

- 1.18 The differences in the two types of designations lie in their origins. SPAs and SACs focus on a narrow list of features considered to be of international nature conservation importance within a framework designed to achieve favourable conservation status or equivalent for the listed species and habitats. In contrast, the designation of MCZs will take socio-economic factors into account, while intending to protect 'representative' habitats as well as Features of Conservation Importance.
- 1.19 Management of the marine environment is completely different from that of land-based activities (see para 1.4) and is controlled by a broader suite of responsible bodies, different legislative regimes and different data assembly, interpretation and reporting skills. Some stakeholders in the marine environment have enjoyed rights, such as freedom of navigation, some gathering of foodstuffs and access to the foreshore. Many of these rights are of fundamental importance to the human communities that live and make their living on the coast.
- 1.20 Operating in the marine environment is much more complex and expensive than in terrestrial environments. Consequently undertaking consented activities, preparing information to seek consent, and monitoring responses are all considerably more expensive than for equivalent activities on land. What is more, few people have any real understanding of what is present in the marine environment, its scientific and intrinsic interest, and in particular the degree to which the environment has been degraded.
- 1.21 This means that the mechanisms for managing the marine environment that were established through Regulations 35 (formerly 33) and 36 (formerly 34) of the Habitats & Species Regulations (2010) were a new approach. They are believed to have been an important component of the management process, but until now this has not been tested. It is therefore important from the perspective of good governance that the lessons that can be derived from experience to date should be evaluated before establishing any alternative management mechanisms for MCZs and the Marine Protected Area (MPA) network. Furthermore, this is a suitable stage for reviewing progress to date and establishing any need for change, as new SACs and SPAs are being designated through the Offshore Marine Conservation (Natural Habitats, &c.) Regulations, 2007.

Objectives of the study

- 1.22 This study was a desk-based exercise in which information was gathered in January and February 2012 from a number of sources, including the Relevant Authorities that are responsible for implementing management schemes, Project Officers directly engaged in the management process and a broader spectrum of stakeholders whose interests are affected by the establishment of management schemes. The study had three clear objectives, to determine if management schemes are:

- i. effective;
- ii. deliver the conservation objectives for the site; and
- iii. represent value for money.

1.23 The project was not intended to be exhaustive and was set a relatively short timescale in which to report. Consequently the level of data collection was such that only a representative selection of stakeholders could be approached. The outcome of this interaction was expected to be analysed to:

- i. assess whether the management schemes are delivering their objectives or whether they need to be improved and how;
- ii. analyse and report on the management schemes, evaluating successful and less successful practice and the implications of this;
- iii. outline current funding and governance arrangements for existing management schemes and identify whether these are fit for purpose and whether improvements can be made; and
- iv. indicate applicability of findings to other Marine Protected Areas such as Marine Conservation Zones.

Choice of study sites and consultees

1.24 There is considerable regional variation in capacity to fund management schemes (see Morris, 2008 for descriptions). This study therefore sought to address a broad geographical spread of sites that encompassed a full range of biological and socio-economic attributes as well as both Special Protection Area (SPA) and Special Area of Conservation (SAC) designations. In many instances the two types of sites overlap.

1.25 Ten sites were originally chosen for the study, based on a combination of socio-economic (regional economic variations) and biogeographic factors (shore and sea bed type, sediment distribution and wave energy environment). Two further sites were added when it emerged that there was particular enthusiasm for the study to look at their work. The final list therefore comprised those in Table 1, below.

Table 1. Final list of selected study sites.

NW England	NE England	East England	S & SE England	SW England
Solway Firth	Berwickshire & North Northumberland Coast	The Wash & North Norfolk Coast	North East Kent	Fal & Helford
Morecambe Bay	Flamborough Head	Stour & Orwell Estuaries	Solent Maritime	Severn Estuary
	Humber Estuary			Plymouth Sound and Estuaries

1.26 This study was a data collection exercise that sought feedback from as broad a range of stakeholders as possible. Two groups were approached for basic data: Project Officers for the respective management schemes and Natural England staff involved with management schemes. In addition stakeholder representatives were selected to seek views on the effectiveness of management schemes. They form the following groupings: Local Authorities, Inshore Fisheries & Conservation

Authorities (IFCAs), Port and Harbour Authorities, and representatives of NGOs. A total of 54 correspondents were interviewed or provided feedback.

- 1.26 A companion report containing supplementary information is also available. It details the questions posed to the different consultees. Contextual information about the composition of Relevant Authorities Groups within European Marine Site Management Schemes and related statistics are also provided. In addition, links to websites for individual European Marine Sites are listed and locations where Regulation 35 advice packages can be accessed are identified.

2. Results and Analysis

- 2.1 Four groups of consultees were defined: Project Officers, Natural England staff, Relevant Authorities and stakeholders within commercial and voluntary sectors. Responses were sought to a series of standard questions that focussed on their specific roles and responsibilities.
- 2.2 Responses varied and a general impression emerged that in the majority of cases respondents within statutory bodies were supportive of their management scheme. Most were not inclined to make critical assessments of shortfalls. However, a minority was more candid and highlighted weaknesses in some projects.
- 2.3 The study highlighted considerable variation in the degree to which individuals and organisations understood the management scheme concept. This was not confined to a single stakeholder group but a number of respondents were seemingly unaware of the differences between ongoing management and “plans and projects” (Regulations 61 and 62).
- 2.4 Investigations into the levels of information available on web sites also highlighted the limitations of this medium. The internet can clearly be extremely useful, but only when information is posted in an up-to-date and accessible manner. Unfortunately, we found that a great many Regulation 35 advice packages were not readily available, and that access to some management schemes was also limited.

Governance

- 2.5 Management schemes are not the only option for managing European Marine Sites. Some sites are managed using SSSI provisions and others are managed using alternative arrangements, such as the Local Nature Reserve plan for Pagham Harbour. However, the management scheme approach has been used for many of the biggest combinations of sites and this represents the approach that was thought appropriate at the time provisions were made to address management in the marine environment.
- 2.6 Consultees largely regard governance arrangements to be in place and fit for purpose, although in some cases this has been a process of evolution. In the majority of cases, Natural England reported that management schemes were essentially owned by the Relevant Authority stakeholders rather than being driven by a particular organisation. This contrasts with minority views amongst Relevant Authorities who cite NE, IFCA and Local Authorities as leaders.
- 2.7 A wide variety of organisational structures has been employed. Some involve the format that was originally developed (Relevant Authorities Groups and Advisory Groups) but there is such a wide range of variation that no common definable models emerge.
- 2.8 Although the majority of Relevant Authorities have engaged positively in the management scheme process, there is a minority that has not; either because their role is peripheral to the main issues affecting the European Marine Sites, or because they dispute their role altogether.

- 2.9 Engagement by Relevant Authorities varies, but a pattern emerges in which those whose responsibilities are less relevant to site management tend to participate more sporadically (e.g. Internal Drainage Boards). Attendance at meetings is served by staff of a variety of grades, and the general perception was that the mix was about right.
- 2.10 In the majority of the case studies a European Marine Site Project Officer is employed and provides the secretariat. In three examples the management scheme and the estuary/coastal partnership have merged, and at two further sites the Project Officer post was vacant. In one case there is no project officer and the County Council provides the secretariat.
- 2.11 Turnover in Project Officers has generally been low. It was reported that out of the nine Project Officers involved in this study, three had been in post for between one and three years; the others were more established. However, in one case turnover was relatively frequent as a consequence of ongoing funding uncertainty.
- 2.12 It would appear that the Advisory Group model has gained relatively little traction but there are notable exceptions: the Tamar Estuaries Consultative Forum has representatives from a wide range of stakeholders; Flamborough Head has a Fisheries Liaison Group; The Wash & North Norfolk Coast has established three Advisory Groups to accommodate the huge geographic spread of communities; and North East Kent not only consults with an advisory stakeholder group but also has an active scientific advisory group for specific technical input.
- 2.13 The degree to which Relevant Authorities consider input from the stakeholder community varies. Although the broad indications are that key feedback is absorbed and is taken into account, there are noteworthy exceptions and in places critical messages have limited impact. Pressure from NGOs has clearly been a factor behind some management responses. Meanwhile, pressure from Natural England and/or Defra has occasionally been necessary to secure the conservation of certain attributes.

Objective-setting and delivery

- 2.14 There is a majority view within Natural England respondents that management scheme objectives are clearly defined. This was not universal, however, and an impression was gained that this could be improved upon at least in a minority of cases.
- 2.15 Management scheme documents follow no consistent format and the issues they raise are described in varying detail, ranging from a high level overview to a detailed analysis on a unit-by-unit basis. Whilst some are extremely focussed, others concentrate on issues that would normally relate to a broader spectrum of interests than European Marine Sites.
- 2.16 The majority of actions within management scheme documents relate to monitoring and review. Relatively few real actions have been defined, and the majority of these indicate that where a problem is identified it might be addressed by the use of bye-

laws. In places management actions appear to relate to implementation of Regulations 61 and 62 (plans and projects) rather than to ongoing operations. This may lead to confusion between the role of the management scheme and that of the Competent Authorities who may not be members of the Relevant Authorities Groups.

- 2.17 The degree to which Natural England considered objectives to have been met varied hugely: >80% (3 sites); 60-80% (2 sites); 40-60% (1 site); 20-40% (0); <20% (1 site). Respondents representing four sites did not answer this question. In the majority of cases Natural England staff regarded the inclusion of particular objectives/actions within the management scheme to have been an influential factor in the achievement of improvements in site condition. However, not all of the changes have resulted as a consequence of the management scheme, and some may have been coincidental rather than overt.
- 2.18 Positive messages on the identification and correction of problems were deceptive. Many of the examples cited focussed on a broader suite of issues than those that might have been considered as strict management scheme issues, such as delivery of Water Framework Directive and flood risk management objectives.
- 2.19 The factors that have helped or prevented delivery of management scheme objectives are complex. Four factors appear to have contributed to success. These are:
- the ease of achieving a particular outcome;
 - Use of a collaborate approach;
 - the presence of a project manager; and
 - the availability of funding.
- 2.20 Conversely, lack of commitment amongst certain Relevant Authorities, insufficient evidence to demonstrate cause and effect, and lack of funds have acted as brakes on progress.
- 2.21 In many cases the statutory function of a management scheme appears to have evolved into a coastal management partnership with some statutory functions embedded. Mission creep was detected in a number of places and this means that it is very difficult to accurately judge the benefits of some schemes. This has not been a universal problem and some schemes have deliberately maintained a distance from the related coastal partnership to avoid getting subsumed into non-statutory initiatives.

Effectiveness of existing arrangements

- 2.22 Any judgment of the effectiveness of current arrangements needs to take account of a 'do nothing' option (as used in shoreline management planning). In this scenario, a mechanism for managing European Marine Sites might still be necessary, depending upon the issues encountered and the absence of a management scheme, a mechanism for action would have to be found. Assuming that no particular body was identified as the designated lead on managing European Marine Sites, the first issue would be the designation of a lead body.

2.23 The following are strengths, weaknesses, opportunities and threats (SWOT) analyses of the European Marine Site management models identified during this study. The analyses were undertaken by the report's authors after reviewing the interviews taken during the study, and by using expert judgement.

No management scheme

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Viable model if no major issues. 2. Minimal outlay from Relevant Authorities. 	<ol style="list-style-type: none"> 1. No scope for driving management actions. 2. Lack of focus on the needs of the EMS. 3. No mechanism for creating common understanding of issues.
Opportunities	Threats
<ol style="list-style-type: none"> 1. None. 	<ol style="list-style-type: none"> 1. Statutory issues have to be dealt with on a 1:1 basis. 2. No mechanism for joint working if issues emerge. 3. Lack of obvious leadership.

No management scheme but estuary or coastal partnership is regarded as the management model

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Provides an integrated approach. 2. Provides a forum for dialogue. 3. Provides a platform for action if deemed appropriate. 	<ol style="list-style-type: none"> 1. No overt recognition of EMS. 2. Limited focus on statutory issues. 3. Vulnerable to funding shortfalls 4. Potential for distraction onto fund-yielding projects. 5. Potential for 'box-ticking' 6. Poor feedback on site condition from NE.
Opportunities	Threats
<ol style="list-style-type: none"> 1. Scope to maintain or improve Relevant Authority understanding of EMS. 	<ol style="list-style-type: none"> 1. No obvious leadership for addressing European marine site issues 2. Vulnerable to funding shortfalls. 3. Lack of direction from Defra.

Management Scheme relies on secretariat from one of the Relevant Authorities

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Minimises management costs. 2. Central point of contact. 	<ol style="list-style-type: none"> 1. Leadership can be uncertain. 2. Potential for 'box-ticking'. 3. No mechanism/person for pushing action or agenda. 4. Relies on one of the Relevant Authorities to deliver project-working. 5. Poor feedback on site condition from NE.
Opportunities	Threats
<ol style="list-style-type: none"> 1. None. 	<ol style="list-style-type: none"> 1. Requires leadership from one Relevant Authority to make any progress. 2. Relies on dialogue between individual Relevant Authorities. 3. No mechanism for delivering communal action. 4. Lack of direction from Defra.

Management Scheme without Project Officer but using a Coastal Partnership to provide secretariat

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Common understanding of issues. 2. Minimises secretariat costs. 3. Works provided there are no major issues. 4. Central point of contact. 5. Provides continuity. 6. Saves time within Relevant Authorities by working together. 	<ol style="list-style-type: none"> 1. Can need defined leaders. 2. Issues may not be addressed through consensus-building. 3. Poor understanding of legal role amongst some RA. 4. Confusion with broader objectives of coastal partnership. 5. Potential for management scheme to be sidelined by other priorities. 6. Greater potential for box-ticking. 7. Poor feedback on site condition from NE.
Opportunities	Threats
<ol style="list-style-type: none"> 1. Working together to solve broader problems. 2. Scope for project working. 	<ol style="list-style-type: none"> 1. Funding shortfalls. 2. Distraction into fund-chasing. 3. Lack of understanding of European Marine Site responsibilities on part of some Relevant Authorities. 4. Potential for 'box-ticking'. 5. Turnover of experience in Relevant Authorities (hence point 3 above). 6. Lack of leadership from Agencies. 7. Lack of direction from Defra.

Management Scheme with Project Officer

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Common understanding of issues. 2. Somebody to chivvy and prompt for action (provides momentum). 3. Provides secretariat. 4. Central source of information and contact. 5. Saves time working together. 6. Possible cost-effective delivery of statutory function. 7. Structure can create links with wider stakeholders. 8. Provides momentum. 	<ol style="list-style-type: none"> 1. Can need defined leaders. 2. Issues may not be addressed through consensus-building. 3. Poor understanding of legal role amongst some RAs. 4. Potential for 'box-ticking'. 5. Poor feedback on site condition from NE.
Opportunities	Threats
<ol style="list-style-type: none"> 1. Working together to solve broader problems. 2. Scope for project-working. 	<ol style="list-style-type: none"> 1. Funding shortfalls. 2. Distraction into fund-chasing. 3. Lack of understanding of European Marine Site responsibilities on part of some RAs. 4. Turnover of experience in Relevant Authorities (hence point 3 above). 5. Lack of leadership from Agencies. 6. Lack of direction from Defra.

The benefits and drawbacks of employing a Project Officer

- 2.23 There are clear distinctions between those management schemes that employ a Project Officer whose role is entirely focussed on the scheme, and those where an estuary/coastal partnership officer acts as the secretariat to the scheme. Each brings benefits but there are a series of critical differentiators:
- i. A Project Officer whose role is confined to supporting the management scheme is likely to hold a better understanding of the scheme and its purpose.
 - ii. The role of a Project Officer is not confined to providing the secretariat. A key function is to make sure that actions are being pursued and that the process does not end up as a box-ticking exercise.
 - iii. Intermediates between the Project Officer and estuary/coastal partnership exist where the main thrust of the effort remains focussed on statutory responsibilities. In this respect, the Tamar Estuaries Consultative Forum and the Thanet Coast Project offer strong examples (the Humber Estuary, Berwickshire and North Northumberland Coast, and Suffolk Estuaries projects all exhibit similar strengths).
- 2.24 Our analysis suggests that whilst management schemes can, and do, operate effectively from using a coastal or estuary partnership officer, there are a number of inherent weaknesses to this model.
- i. The costs of running the scheme are relatively small, but they are overwhelmed by the need to maintain the partnership.
 - ii. On the one hand, the management scheme creates a statutory reason for maintaining the partnership but, equally, the low cost of the statutory element means that cost-saving measures will focus more on the non-statutory elements and making the partnership vulnerable.
 - iii. Where partnerships have a much broader focus there is a strong likelihood of efforts being focussed on issues that can generate external funds. This of course brings considerable leverage to relatively small individual contributions but it means that the statutory functions take second place behind other projects.
 - iv. Participating Relevant Authorities must recognise that should the partnership fail because funding ceases to be sufficient to maintain a Project Officer, there will be a need to establish a new mechanism for implementing the management scheme. This may be as expensive as maintaining the partnership officer.

Wider considerations for management

- 2.25 Relevant Authorities for The Wash and North Norfolk management scheme reported that they had concluded that confluence with The Wash Estuary Strategy would dilute the effort of the management scheme; consequently the two had remained separate. Conversely, we learned that in other places, where European Marine Site management had been combined with an estuary/coastal partnership, it appeared as though emphasis on the management scheme had diminished as the Estuary Strategy had pursued new funding opportunities for a broader suite of activities.

- 2.26 Where the management scheme forms one part of a broader suite of responsibilities the income it generates is comparatively small. It does not provide underpinning funding; in fact it operates on the basis that other funding streams will minimise the cost of the secretariat.
- 2.27 As long as the organisational arrangements focus on a broader suite of activities, the Relevant Authorities themselves are likely to misunderstand the purpose of the management scheme. This was an impression that was gained from sufficient respondents to recognise it as a trend.
- 2.28 This analysis suggests that, whilst several models for administering management schemes can be used, those that focus on the scheme stand a better chance of ensuring that Relevant Authorities meet their statutory duties. In some cases a scheme may not be necessary, and in others the issues involved may not justify employment of a Project Officer. Where, however, there are numerous issues that affect a broad suite of Relevant Authorities and a management scheme is deemed necessary, a single point of contact is likely to be the most effective means of co-ordinating actions.

Funding

- 2.29 No consistent pattern of funding arrangements could be detected. In some cases provision of secretariat for the management scheme was absorbed within the work of the Coastal/Estuary Partnership, whereas in others funding contributions were proportional to the size of the contributing bodies. Varying levels of 'in kind' contributions were also reported. This information is too diverse to generate a financial model for a typical management scheme. Six out of nine Project Officers reported that contributions were not sufficient to deliver the complete work programme within the management scheme.
- 2.30 During the initial stages of developing management schemes English Nature was the principal funder on the basis of 'pump-priming'. This approach parallels the development of Estuary Management Strategies. Funding still seems to be dominated by Natural England contributions but all Natural England staff who responded anticipated funding shortfalls for future years.
- 2.31 Respondents whose Authorities provide financial support all indicated that they were committed to maintaining management schemes but were uncertain about medium to long-term funding. There was particular concern that were Natural England to cease funding management schemes, this would have a domino effect and would lead to other funding bodies doing the same, with the effect that schemes would cease to exist.
- 2.32 Some Relevant Authorities have opted out of management schemes, leaving remaining participants to shoulder the costs. No sanction against non-participants seems to be possible without a form of complaint by other Relevant Authorities. Consequently, non-participants appear to be able to disengage because there is a lack of willingness by others to raise concerns.

- 2.33 Concern about management schemes broadening their remit in order to chase funding was detected amongst a minority of respondents. This compares with similar experience amongst some estuary and coastal partnerships, where fund-chasing is an inevitable consequence of shortfalls and uncertainty about future funding arrangements.
- 2.34 This is a developing problem that demonstrates how the pump-priming approach to funding has inherent weaknesses where a long-term statutory commitment is necessary. It raises an important question about the viability of current arrangements and their transferability to new Marine Conservation Zones and future MPA management.

Access to information

- 2.35 It is important to recognise the role documentation can play in disseminating the conservation objectives for individual European Marine Sites. This is available both through the Regulation 35 advice given by Natural England and in the Management Scheme documentation.
- 2.36 Although the documentation for many management schemes can be found through internet searches this is not always intuitive or obvious. Details of current locations on websites are provided in Table 7 of the supplementary information report.
- 2.37 Regulation 35 advice is much more difficult to access and in many instances it does not seem to be available at all using conventional internet searches. Part of the problem lies in the age of some documents which date back ten years or more and are listed as 'Regulation 33' advice in accordance with the preceding 1994 Habitats Regulations. Others are simply not available (see Table 8 in the supplementary information report).

3. Findings and Interpretation

- 3.1 Management schemes have been in place for more than ten years. This means that their effectiveness has been tested sufficiently to make a judgement of their strengths and weaknesses.
- 3.2 The major drawback of the management scheme approach appears to lie in the legal foundations. The biggest weakness appears to be the lack of direction over leadership. Furthermore, it is not apparent from the 2010 Regulations that there is any mechanism for ensuring that those management schemes that have been established are actually delivering the stated site conservation objectives (although it is implicit through the Natura 2000 reporting process).
- 3.3 Statutory respondents recognise multiple benefits from engagement in management schemes. These include:
- i. improved communication between Relevant Authorities;
 - ii. access to skills that could not be maintained within their Authority;
 - iii. time-saving for individual Relevant Authorities who would have to do more to deliver their statutory remit;
 - iv. access to information and information dissemination; and
 - v. a demonstrable commitment to delivering statutory functions.
- 3.4 Support for management schemes should not be interpreted as an unqualified justification for their existence. It is, however, important to recognise that where one is already established, an alternative mechanism would almost certainly be needed in their absence.

Estimated costs of developing and running management scheme

- 3.5 Data on the cost of establishing and running a management scheme over the period from 1997 to 2011 are extremely difficult to compile. However, if some basic assumptions are employed, the costs can be estimated sufficiently to establish a working baseline for assessing ongoing costs (Table 2).

Working assumptions:

- i. The management scheme was developed during the European Marine SACs LIFE Project.
- ii. A Project Officer was employed to develop the management scheme.
- iii. Engagement between the scheme Project Officer and officers within Relevant Authorities was on an ongoing basis and that a minimum of ten days per year were required of each Relevant Authority to engage with the developing project.
- iv. That Relevant Authority staff engaging in the project were middle-ranking officers with a salary of between £30,000 and £35,000 at 2012 rates.
- v. That the true cost of employing Relevant Authority staff involved on-costs of an additional 40%.
- vi. That once the management scheme was established, it employed a Project Officer.

- vii. That the scheme was composed of ten Relevant Authorities.
- viii. That the Relevant Authorities met three times per year and that a further three days per year were needed to follow-up actions after meetings.

3.6 The estimated total cost of establishing a management scheme and employing a Project Officer to run the scheme from 1997 to 2011 is calculated to be £715,000. If a Project Officer is not employed and the scheme is run via a secretariat provided either by an estuary partnership (e.g. Solway Firth or Solent Forum) then the costs should be considerably lower. Apart from the original set-up costs estimated at £210,000, the yearly running costs may be estimated at £70,000 (10 officers at four days per year over ten years). This suggests that the lower engagement model for management schemes will have cost in the order of £280,000 for the same 4-year period.

Table 2. Estimation of the total cost of establishing a management scheme from 1997 to 2011.

Outlay	Notes	Estimated cost*
Set-up costs		
Project Officer (full time) during scheme development. (1997-2001).	It was reported from the Solway Firth that the costs were in the order of £140,000 during the European Marine SACs LIFE project.	£140,000
RA officer time during scheme development (1997-2001).	Estimated as 10 days per year per Relevant Authority on a salary and on-costs of £175 per day. = (10 x 10 x £175.00) x 4	£70,000
Total set-up costs		£210,000
Running costs (2002-2011)		
Project Officer (full time) (2002-2011)	Based on nominal estimate of £40,000 pa to run the Project Officer using The Wash as an indicator.	£400,000
RA officer time engaging with the management scheme on 3 occasions per year over ten years since 2001. (2002-2011).	Estimated as 6 days per year on a salary and on-costs of £175 per day. = (6 x 10 x 175) x 10	£105,000
Total running costs		£505,000
Annualised running costs		£45,909
Total outlay (1997-2011)		£715,000

* Note: This costing is only indicative.

Possible models for cost-benefits for supporting a Project Officer

3.7 The benefit of having a management scheme lies in it providing a focus for identifying actions to meet conservation objectives and for reporting and feedback to the Relevant Authorities. However, management schemes require leadership from a designated body to maintain an overview of actions and progress. One possible mechanism is to provide a co-ordinator and in that respect there is a case for examining the relative costs and benefits without considering whether a Project Officer is necessarily the appropriate choice of approach.

Model 1: Relevant Authorities employ in-house staff

- 3.8 If each Relevant Authority had to maintain sufficient knowledge to make sure that they were meeting their statutory responsibilities then they would probably have to employ somebody with the requisite skills.
- 3.9 In most Local Authorities, the skill-base for environmental issues will largely be in the terrestrial environment because that is where most of the pressures and issues arise – land-use management and land-use planning. So, employment of somebody with specific skills to service one small part of the Authority’s responsibilities is not particularly cost-effective.
- 3.10 Thus, for many Authorities, a contribution towards a single staff member employed as a ‘Project Officer’ makes economic sense. However, unless Authorities are reminded that this is a means of delivering their statutory responsibilities, they will start to overlook it and funding will be vulnerable to the overall programme of cost-cutting.
- 3.11 A basic metric for cost-effectiveness therefore lies in the potential cost of employing a dedicated officer against the cost of making a contribution to buy skills and time from a single point of contact.
- 3.12 An officer with suitable skills will require a suite of attributes, including relevant qualifications and experience. In areas where there are difficult challenges, such an officer is likely to have considerable experience and therefore will not lie at the bottom of the career path.
- 3.13 It is therefore suggested that employing an officer at National Joint Council for Local Government Services (NJC) pay-scale spinal point 30-32 should be used as the baseline for the cost to an Authority if it were to employ its own dedicated skill-base. This equates to roughly £40k pa based on the costs of salary, national insurance, pension contributions and overheads. The costs of running management schemes appear to fall into a similar financial bracket.
- 3.14 It has to be borne in mind that the actual work involved in running a management scheme will vary according to the level of problem-solving required and the degree to which effort is made to effect improvements. Thus, it is possible that provision of relevant expertise may be made on a part-time basis where pressures are lower; an annual budget of perhaps £20,000 is therefore a more realistic provision for many Authorities were they to have staff dedicated to this statutory duty.
- 3.15 None-the-less, where a management scheme employs a Project Officer who provides a part-time service for ten Relevant Authorities, the joint expenditure of £40,000 might be argued to have saved as much as £160,000 ([10 x £20,000] - £40,000 = £160,000). Where there are more Relevant Authorities, such as The Wash and North Norfolk Coast, the savings are potentially much higher.

Model 2: Relevant Authorities retain the services of outside specialists

- 3.16 In the absence of relevant skills within a Relevant Authority, two possible options might be pursued to provide expertise to assist in the discharge of statutory responsibilities:

- i. Employ a consultant for a set number of days to attend to technical issues.
- ii. Establish a forum for joint funding of a specialist to maintain a common source of information and a conduit for information exchange.

- 3.17 Appointing a consultant may be cost-effective, subject to the numbers of days they are employed. However, an appointment that requires maintenance of relevant information and engagement with other Relevant Authorities is likely to require a minimum of 2 days per month. The costs of this will vary according to the choice of consultant, but it would be reasonable to work on a day rate of between £350 and £600 per day. This suggests the possible cost to a Relevant Authority of commissioning external support would be in the order of £8,400 to £14,400.
- 3.18 Extending this across a group of ten Relevant Authorities it can be extrapolated that the costs of maintaining technical competence would be in the range of £84,000 to £120,000. This assumes that each Authority would appoint its own consultant as each would require capacity strictly to represent their respective interests and to maintain information streams and advice.
- 3.19 Thus, the costs of maintaining a Project Officer at £40,000 p.a. compares favourably against the use of consultants.

Transferring good practice to new sites

- 3.20 A number of key strengths may be identified from the analysis of management schemes when considering the designation of MCZs and application to new SACs and SPAs. These are that management schemes can provide a means for:
- i. Clear governance that is transparent to all.
 - ii. Collaborative partnership working.
 - iii. Improved communication.
 - iv. Transparent decision-making.
 - v. Increased access to skills and information.
 - vi. Monitoring and review process.
- 3.21 In the case of inshore sites, experience has been gained in the last 12 years during the development and implementation management schemes. Relevant Authorities have established common understanding of their respective responsibilities to achieve a common goal. This experience means that they are now in a good position to take on new requirements with respect to MCZs and the MPA network. Making use of these partnerships would therefore be cost effective and time efficient.
- 3.22 Management scheme approaches may bring benefits to the designation of new offshore sites, but most Relevant Authorities will be increasingly disengaged in offshore waters, and particularly beyond the 6 nm UK Territorial Limit. As long as there are no management schemes or equivalent structures offshore, JNCC's continued role in engaging the North Sea and North-western waters Regional Advisory Councils (RACs) therefore appears critical. The UK Marine Protected Area Stakeholder Forum also appears to be important in ensuring both national and

international stakeholders are aware of and engaged in the offshore MPA designation process. Both the RACs and the UK MPA Stakeholder Forum are limited by their advisory-only roles. They can only support or criticise management measures as proposed through the European Commission, rather than actually impose regulations. However, strong and unified stakeholder support for proposals would provide a very considerable boost towards introducing any measures through Europe and Common Fisheries Policy (CFP).

4. Conclusions and considerations

- 4.1 Management schemes have a variety of limitations but the majority do generate benefits. Where management issues involve several Relevant Authorities there will still be a need for a mechanism to effect management. There is therefore a defensible case for maintaining the management scheme approach. It should also be emphasised that if management schemes were disbanded, an alternative approach would need to ensure delivery of statutory responsibilities under the Habitats & Species Regulations (2010).
- 4.2 A great deal of effort went into developing management scheme processes and documentation, but very little thought has been given to how they would actually work and to whom they would report. This issue means that whilst management schemes have been in place for the past ten plus years, no real picture of their impact has been maintained. With increasing financial pressure, this needs to be resolved if they are to be retained. It is therefore recommended that a clearer structure for the roles, responsibilities, monitoring and reporting should be established.
- 4.3 Our analysis has identified some of the limitations that make direct and universal translation of the management scheme concept into MCZ management unwise. We do not think this approach will work beyond the 6 nm limit, although it has potential to do so in the near-shore environment in a modified form.

Should schemes have a Project Officer?

- 4.4 There can be no hard and fast rule about the need to employ a Project Officer. Where there is no obvious need for a management scheme then there is little point in establishing one; however where a need is identified then a Project Officer may help to maintain direction and impetus. Provision of a central source of expertise and information also means that a project-officer can be an extremely cost-effective mechanism for ensuring that Relevant Authorities' statutory responsibilities are discharged.
- 4.5 The relative merits of using a management scheme Project Officer or securing secretariat through an existing coastal or estuary partnership are complex. Some combined models work well, but there is a risk of attention being diverted onto projects chasing funds in order to remain viable. Consequently we believe that the dedicated management scheme model should be followed where there are significant conservation management issues to address.

Roles and responsibilities

- 4.6 The roles and responsibilities of Relevant and Competent Authorities need to be clarified. Confusion about the differences between 'ongoing operations' and plans and projects within other Relevant Authorities (e.g. Local Authorities and IFCAs) also needs to be resolved. This could be done in two ways:

- i. Production of literature that is geared to the needs of both officers and elected members of Relevant Authorities. It should clearly explain the origins of management schemes, what they are expected to deliver and how this is to be achieved. It should also clearly set out the roles and responsibilities of Relevant Authorities, where particular types of authority fit into the scheme, and the nature of responses that are expected of them.
- ii. An information-dissemination process or 'roadshow' aimed at senior officers within Relevant Authorities to make sure that seemingly marginal environmental responsibilities are not overlooked in preference to pressing social and economic priorities.

4.7 There are three critical functions that require attention:

- i. Provision of leadership for European Marine Sites management schemes and/or for Marine Conservation Zones.
- ii. Scrutiny and monitoring of performance of management schemes and the degree to which they are contributing towards delivery of favourable condition of site features.
- iii. Feedback to Relevant Authorities on site condition monitoring and its significance in the context of management scheme objectives.

4.8 In a small number of cases the management scheme is dominated in numerical terms by Internal Drainage Boards (IDBs) whose management influence on the marine element of the site is limited. This influence would be greatly extended if management schemes were to be integrated with terrestrial elements of the Natura 2000 interest. If current arrangements are maintained, there would be merit in establishing a model that allowed cost-effective engagement by IDBs – perhaps through the nomination of a reduced number of representatives on the Relevant Authorities Group. Considerable thought needs to be given to viable models that would be both cost-effective and equitable.

Funding

4.8 Major funding shortfalls associated with reorganisation of roles and responsibilities of some Relevant Authorities have been recognised as a major issue. Most management schemes are heavily reliant upon funding from Natural England and consequently any change in this arrangement would have major consequences without the establishment of an alternative funding source.

4.9 If it is concluded that there is a case for establishing a central fund to provide a partial guarantee of funding for functioning management schemes, a possible model is offered in which four key provisions are critical:

- i. That the central pool of funding is matched by the Relevant Authorities, and any disengagement by any one Authority also results in a commensurate reduction in central funding.

- ii. A reporting process is established in which the degree of engagement by Relevant Authorities is monitored and reviewed in the context of site condition reporting.
- iii. Where Relevant Authorities disengage, lead regulators and Defra follow up and remind the body concerned about its statutory responsibility.
- iv. Where site condition monitoring suggests a drift away from favourable condition, lead regulators, agencies and Defra as Relevant Authorities will take action through appropriate mechanisms.

4.10 In further developing a model to promote participation in and support for management schemes by Relevant Authorities, it is worth considering the approach taken to ensure participation in and support for Inshore Fisheries and Conservation Authorities (IFCAs) by Local Authorities. This is outlined in the Marine and Coastal Access Act (2009) and includes:

- i. Relevant Local Authorities are required to defray portions of the IFCA expenses, with additional supplementary funding provided by central Government via those Local Authorities.
- ii. Each IFCA is required to publish an annual plan, setting out the IFCA's main objectives and priorities for the year.
- iii. Each IFCA is then required to send a report to the Secretary of State, detailing the IFCA's activities in that year.
- iv. The Secretary of State then reports to Parliament on a four-yearly basis on the conduct of the IFCAs against agreed success criteria.

4.11 The implication of the performance review for IFCAs is that the provision of additional central government funding could be subject to the successful achievement of objectives. In turn, requiring Relevant Authorities to fund management schemes, with additional ring-fenced budgets being made available subject to performance, may also encourage their continued participation. This approach would depend upon the establishment of a central co-ordinator with responsibility for maintaining oversight of management scheme performance.

Improving integration between terrestrial and marine conservation objectives

4.12 Management of EMSs within the context of a wider stretch of coastline or water body has been advocated as best practice by several Relevant Authorities. This makes sense as many coastal SPAs comprise both terrestrial and inter-tidal elements, and their management is often closely interlinked (especially where flood risk management strategies are involved). Also, sites within close proximity of one another may require similar management actions by the same group of management practitioners. There is therefore a strong case for exploring a new approach to site management in the coastal zone where the package of advice

(Regulation 35) extends to include the terrestrial components and the management scheme considers a broader geographic extent.

- 4.13 This ‘whole ecosystem’ approach would be a step closer to the ecosystem-based approach recognised in the Natural Environment White Paper (HM Govt., 2011). It also corresponds well with the principles of integrated coastal zone management (ICZM) that have been an aspiration for 20 or more years. Some of this integration has been achieved where management schemes have developed within the framework of coastal partnerships such as the Solway Firth Partnership and the Thanet Coast Project (which incorporates the North East Kent European Marine Site).
- 4.14 However, a whole ecosystem approach will only work well if management focuses on a broader area of the marine and coastal environment rather than focusing on individual sites and fragmented actions. Obvious examples include the relationships between cliff-based seabird colonies and their feeding grounds at sea; and tern colonies and their feeding grounds.

Efficiency gains from managing a suite of marine sites

- 4.15 There are several benefits to the management of a network of sites within the context of a broad area of the marine environment:
- i. The ecological processes at any one European Marine Site do not occur in isolation but are inextricably linked with the wider marine environment.
 - ii. Users of the marine environment interact at different spatial scales and are not necessarily confined to one location, e.g., fishers, or to a particular time of year. Control of activities across a suite of MPAs would benefit from looking at management issues from the users’ perspective.
 - iii. Organisations relevant to the management of the marine environment tend to be common to different sites. There would, therefore, be a time and cost saving through establishment of an overarching umbrella group responsible for a suite of sites.
 - iv. An umbrella group could form a point of contact with other groups, such as Local Nature Partnerships, promoting sustainable use and maximising socio-economic benefits.
- 4.16 Marine management networks could be based on coastal cells (or behavioural systems) (Defra, 2006) or IFCA districts (Defra, 2011), and relate to Marine Planning Areas (MMO, 2011).

Improving reporting

- 4.17 In order to assess the effectiveness of management schemes in delivering conservation objectives, information on site condition assessments needs to be made readily available to the Relevant Authority Management Groups for analysis.

- 4.18 A key finding of Charting Progress 2 (Defra, 2010) , a comprehensive report on the state of the UK seas, was that that there is a “*need to improve the accuracy, resolution and scope of [marine] habitat maps by undertaking more surveys and making the existing data more widely available*”. However, in the context of demonstrating the value of MPAs while designating the new MCZ network and completing the SACs and SPAs series, reviewing and making available the data specific to existing MPAs available should probably be an even greater priority.
- 4.19 Depending on the stage of completion reached by the Natural England condition monitoring programme, and the desired level of understanding regarding the management of existing and future MPAs, additional work may need to be undertaken to analyse the effectiveness of European Marine Site management. The key aims of this work should be to determine:
- i. The availability of data and the existence of any data deficiencies.
 - ii. The condition of existing EMSs.
 - iii. The causes of any identified changes to habitats through time.

Induction pack

- 4.20 A considerable amount of historic knowledge on the purpose of management schemes is held by the few Project Officers and those representatives from Relevant Authorities who have been involved with management schemes from their inception. However, with turnover of staff there is potential for the original purpose of the management scheme to be lost, particularly amongst other wider coastal management roles.
- 4.21 This study has highlighted the need for improved levels of understanding and greater clarity of purpose by Relevant Authorities and wider stakeholders on the role of management schemes. This might best be served through an induction pack, delivered via a workshop, covering:
- i. The function of management schemes and what they are meant to deliver.
 - ii. Legislative background.
 - iii. Basic terms.
 - iv. The role of the Relevant Authorities.
 - v. The need for a partnership approach.
 - vi. Best practice examples for delivering management schemes.
- 4.22 The induction pack would allow those new to management schemes to become familiar with the concept and the respective roles of those involved. It would also offer a reminder to those currently involved in management schemes.

Sharing experience in Europe

- 4.23 The UK can arguably claim to be a leader in managing European Marine Sites because it has run the UK Marine SACs LIFE project and has subsequently reviewed its effectiveness (i.e., this review). It would therefore make sense to share this experience more widely and to disseminate lessons learned in a manner that would help other Member States.

- 4.24 Two possible mechanisms of dissemination might be considered, either separately or in combination:
- i. A report focussed on the lessons to be learned that describes key messages. This might be placed on the Natura 2000 Exchange website <http://www.natura2000exchange.eu/>; and
 - ii. A workshop/conference in Brussels specifically aimed at disseminating experience and sharing ideas with other Member States.

Transferring experience to MCZs

- 4.25 The management scheme approach offers potential benefits in the near-shore environment where there are multiple stakeholders, and issues that can be resolved by working in partnership. Regardless of any particular management actions, the establishment of a forum that allows dialogue is potentially beneficial.
- 4.26 Feedback from stakeholders also showed how management based around discrete geographic areas with identifiable landmarks help stakeholders orientate themselves and identify their area of interest. Where MCZs lie offshore this is a much more difficult process, and consequently there is a case for a mechanism that embraces several MCZs within the context of a coastal landscape with definable landmarks.
- 4.27 Experience from The Wash & North Norfolk shows how the establishment of a series of discrete groups closer to particular areas of interest to non-statutory stakeholders (Advisory Groups) can be beneficial. Therefore, whilst this may increase the amount of officer time required to engage with stakeholders, there is the potential for securing better and more constructive engagement by minimising the distances non-statutory stakeholders have to travel in order to attend meetings.
- 4.28 Given past experience with pump-priming and funding Project Officers, thought needs to be given to the scale of geographic coverage that would make a MCZ implementation project viable. Central commitment and funds should be apportioned to avoid the current funding weaknesses. Regardless of the chosen mechanism for managing MCZs it must be borne in mind that up to 127 sites are involved, including many that extend beyond the 6 nm limit, and this will have considerable resource and financial implications if a single management approach is followed.

Disseminating information

- 4.29 Regulation 35 advice and management scheme documentation are important for a wide variety of reasons and are relevant to many different stakeholders; not just the Relevant Authorities. These should be readily available and maintained in an up to date form.
- 4.30 Finding relevant documentation occasionally defeated even the most experienced researcher. It must therefore be assumed that stakeholders with lesser experience will not find the documents. This could be readily resolved by web-based technologies. At a minimum, Natural England Regulation 35 advice should be made

available through their website or through the UK MPA website⁸ (or both). Ideally, each management scheme should be able to disseminate relevant local documents through a website. This problem could also be addressed by establishing a single website for all Natura 2000 management scheme documents with specific areas for each scheme.

- 4.31 In this respect, the outputs of the European Marine SACs LIFE project need to be made more visible. Unless the researcher knows that they exist⁹, they are unlikely to be found. Corporate memory can be readily lost by archiving older information and in turn it becomes less and less relevant because subsequent generations do not know about it.

⁸ <http://www.ukmpas.org/index.php>

⁹ <http://www.ukmarinesac.org.uk/project-background.htm>

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6. Glossary

Coastal Partnership	A non-statutory project established to draw together a range of coastal bodies to inform and influence management decisions. Partners may comprise a range of statutory and non-statutory functions. Such projects often employ a Project Officer to act as a co-ordinator and occasionally additional staff are employed to deliver specific projects.
Competent Authority	A body that is empowered to make decisions and grant consent to others to progress with particular activities in accordance with relevant statutory provisions.
Estuary Partnership	Essentially the same as a Coastal Partnership, but originating largely as a consequence of English Nature's 'Estuaries Initiative'. Estuary Partnerships were intended to offer a means of co-ordination between statutory bodies to improve integration of decision-making. They usually developed management plans or strategies for a particular estuary or group of estuaries. Management plans were prepared for nearly 40 English estuaries but formal arrangements for co-ordination and implementation have ceased in many cases. Remaining partnerships are increasingly threatened as funding diminishes and is focussed on statutory responsibilities.
Industry-Nature Conservation Association (INCA)	A mechanism for delivering proactive initiatives to improve nature conservation outcomes within highly industrialised estuaries. These are non-statutory bodies that provide an opportunity for commercial funding for wildlife enhancement projects.
Internal Drainage Boards (IDBs)	Bodies established to manage the network of drains (ditches) that was created to bring fenland into agricultural production. IDBs are Relevant Authorities in relation to the Humber, Wash and Severn EMS.
Management Scheme	A statutory mechanism designed specifically to manage European Marine Sites. A scheme may be established under Regulation 36 of the Habitats & Species Regulations and only one scheme can be established for a particular site or group of overlapping sites.
Relevant Authority	A body that has statutory powers to influence the management of the marine environment by alterations to the manner and extent to which particular human activities are undertaken within a European Marine Site.